

DERWENT-ACC-NO: 1985-053056  
DERWENT-WEEK: 198509  
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TITLE: Mfg. super-elastic spring material -  
utilising formation or elimination  
of stress-induced martensite

PATENT-ASSIGNEE: SUMITOMO ELECTRIC IND CO[SUME]

PRIORITY-DATA: 1983JP-0116557 (June 28, 1983)

PATENT-FAMILY:

PUB-NO	PUB-DATE	
LANGUAGE	PAGES	MAIN-IPC
JP 60009864 A	January 18, 1985	N/A
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APPLICATION-DATA:

PUB-NO	APPL-DESCRIPTOR	APPL-NO
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JP60009864A	N/A	
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INT-CL\_(IPC): C22C019/03; C22F001/10

ABSTRACTED-PUB-NO: JP60009864A

BASIC-ABSTRACT: An alloy capable of developing a thermoelastic martensite transformation is formed into a desired spring shape at a temp. higher than its inverse transformation point but below the max. temp. for forming stress-induced martensite without plastically deforming the alloy. The alloy restricted in shape is heated and held at a temp. higher by 300-450 deg.C than the inverse transformation point and then cooled down to a temp. between the

inverse transformation point and the max. temp. for forming stress-induced martensite without plastically deforming the alloy.

The alloy may have the compsn. of 55-58 wt.% Ni and the balance Ti. A part of Ni or Ti may be substituted with one or more of Fe, Co, Zr, V, Cu and Al. The alloy after being released from the restriction is used as a spring.

USE/ADVANTAGE - Useful for mfg. a soft spring material to be incorporated in an electric or electronic device. Since the alloy is treated under a restricted condition, spring back is inhibited.

CHOSEN-DRAWING: Dwg.0/2

TITLE-TERMS:

MANUFACTURE SUPER ELASTIC SPRING MATERIAL UTILISE  
FORMATION ELIMINATE STRESS  
INDUCE MARTENSITE

DERWENT-CLASS: M26

CPI-CODES: M26-B08; M29-D;

SECONDARY-ACC-NO:

CPI Secondary Accession Numbers: C1985-023222